

the chassis is controlled using a controller having a memory and a processor. Control of the operating a laser beam to weld the ground clip to the chassis comprises controlling one or more of power to the laser apparatus, location of the application of the laser beam, and length of time of application of the laser beam.

**[0041]** An apparatus comprises at least one processor and at least one memory including computer program code, the at least one memory and the computer program code configured to, with the at least one processor, cause the apparatus to: mount a grounding clip to a planar flexible printed circuit transmission line; clamp the grounding clip to a chassis of an electronic device; and operate a laser beam to weld the grounding clip to the chassis. Welding the grounding clip to the chassis causes the grounding clip to remain in contact with the planar flexible printed circuit transmission line, and the grounding clip grounds the planar flexible printed circuit transmission line to the chassis. The apparatus is caused to clamp the grounding clip to the chassis using a pressing jig.

**[0042]** An apparatus comprises a conductive chassis; a planar flexible printed circuit transmission line on an internal surface of the conductive chassis; and one or more clips attached to the conductive chassis and in contact with the planar flexible printed circuit transmission line to ground the planar flexible printed circuit transmission line to the conductive chassis. An adhesive may be included between the planar flexible printed circuit transmission line and the conductive chassis. The planar flexible printed circuit transmission line may comprise an elevated feed system defined by a flexible layer bonded to the conductive chassis and a signal line attached to the flexible layer. A soldered or welded connection may be included between the planar flexible printed circuit transmission line and the conductive chassis. The planar flexible printed circuit transmission line comprises an elevated feed system defined by a metal connector received into a slot in a bezel of the apparatus, a ground strip attached to the metal connector by soldered or welded fillets formed at a juncture of the ground strip and the metal connector, a dielectric layer attached to the ground strip, and a signal line attached to the dielectric layer. The planar flexible printed circuit transmission line is mounted perpendicular to a major plane of the conductive chassis. The one or more clips comprise nickel plated phosphor bronze. The conductive chassis comprises aluminum or 6061-T6 aluminum alloy. The one or more clips are attached to the conductive chassis using a laser welding means.

**[0043]** It should be understood that the foregoing description is only illustrative. Various alternatives and modifications can be devised by those skilled in the art. For example, features recited in the various dependent claims could be combined with each other in any suitable combination(s). In addition, features from different embodiments described above could be selectively combined into a new embodiment. Accordingly, the description is intended to embrace all such alternatives, modifications and variances which fall within the scope of the appended claims.

What is claimed is:

1. A method, comprising:

mounting a grounding clip to a planar flexible printed circuit transmission line;

clamping the grounding clip to an inner wall of a chassis of an electronic device; and

operating a laser beam to weld the grounding clip to the chassis to route the flexible printed circuit transmission line along the inner wall;

wherein welding the grounding clip to the chassis causes the grounding clip to remain in contact with the planar flexible printed circuit transmission line to ground the planar flexible printed circuit transmission line to the chassis.

2. The method of claim 1, further comprising adhesively attaching the planar flexible printed circuit transmission line to the inner wall of the chassis.

3. The method of claim 1, wherein mounting a grounding clip to the planar flexible printed circuit transmission line comprises soldering the grounding clip to the planar flexible printed circuit transmission line.

4. The method of claim 1, wherein clamping the grounding clip to the inner wall of the chassis comprises urging the grounding clip against the chassis using a pressing jig.

5. The method of claim 4, wherein urging the grounding clip against the chassis using a pressing jig comprises causing two claws of the pressing jig to urge opposing ends of the grounding clip against the inner wall of the chassis.

6. The method of claim 1, wherein operating a laser beam to attach the grounding clip to the chassis comprises directing the laser beam between two claws of a pressing jig clamping opposing ends of the grounding clip against the inner wall of the chassis.

7. The method of claim 1, wherein operating a laser beam to weld the ground clip to the chassis is controlled using a controller having a memory and a processor.

8. The method of claim 7, wherein control of the operating a laser beam to weld the ground clip to the chassis comprises controlling one or more of power to the laser apparatus, location of the application of the laser beam, and length of time of application of the laser beam.

9. An apparatus, comprising

at least one processor, and

at least one memory including computer program code, the at least one memory and the computer program code configured to, with the at least one processor, cause the apparatus to:

mount a grounding clip to a planar flexible printed circuit transmission line;

clamp the grounding clip to a chassis of an electronic device; and

operate a laser beam to weld the grounding clip to the chassis;

wherein welding the grounding clip to the chassis causes the grounding clip to remain in contact with the planar flexible printed circuit transmission line, and wherein the grounding clip grounds the planar flexible printed circuit transmission line to the chassis.

10. The apparatus of claim 9, wherein the apparatus is caused to clamp the grounding clip to a chassis of an electronic device using a pressing jig.

11. An apparatus, comprising:

a conductive chassis;

a planar flexible printed circuit transmission line on an internal surface of the conductive chassis; and

one or more clips attached to the conductive chassis and in contact with the planar flexible printed circuit transmission line to ground the planar flexible printed circuit transmission line to the conductive chassis.